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CAUDAL SCALATION OF CENTRAL AMERICAN
CROCODYLUS

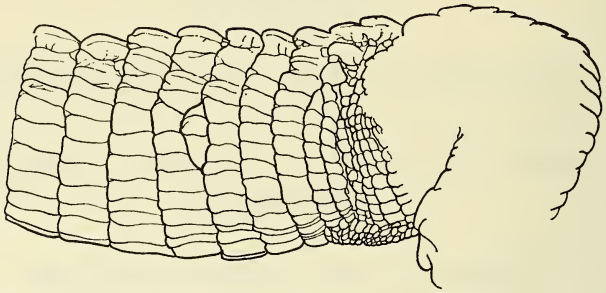
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Two species of Central American crocodiles, *Crocodylus acutus* Cuvier, 1807, and *C. moreletii* Duméril, 1851, have been confused owing to variation in their presumed diagnostic characters. The examination of a large number of live and preserved individuals shows that these species can be differentiated on the basis of their caudal scalation. Specimens of *C. acutus* were examined from Belice, Guatemala, Honduras, Mexico, and Nicaragua; *C. moreletii* was examined from throughout its range—Belice, Guatemala, and Mexico.

The presence of caudal irregularities in *C. moreletii* was used by King and Brazaitis (1971) to aid in the identification of commercial crocodilian skins. However, they failed specifically to note that caudal irregularities occur on some *C. acutus*. In both species, one or more scales have been noted between the caudal whorls in the proximal half of the tail (Fig. 1). No more than three proximal irregularities occur in *C. acutus*, as determined from the examination of 63 specimens; each irregularity may consist of from one to three scales. Furthermore, these irregularities are restricted to the lateral surface of the tail (Table 1). *Crocodylus moreletii* also exhibits proximal caudal irregularities; however, these are always on, but not limited to, the ventral surface. These ventral surface irregularities are variable. They may be either a single scale, or two or more scales arranged laterally. Extensive,

A



B

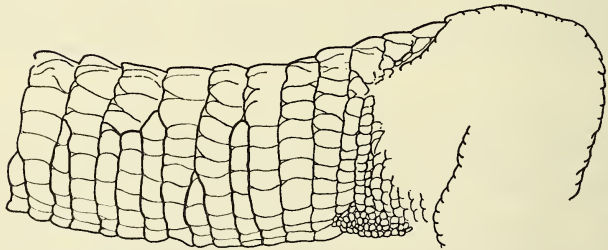


FIG. 1. Ventro-latero views of anterior caudal scalation of *C. acutus* (A), and *C. moreletii* (B), showing caudal irregularities. Anterior is to the right of the figure.

complex ventral irregularities have been noted in which the normal number of proximal ventral whorls was nearly doubled. Some specimens of *C. moreletii* exhibit lateral caudal irregularities similar to those of *C. acutus*, but these are always accompanied by ventral irregularities.

No mention of proximal caudal irregularities was made in the type descriptions of *C. moreletii* (Duméril and Duméril, 1851; A. Duméril, 1852). The second description (1852) was accompanied by a plate which shows ventral proximal caudal irregularities extending laterally. King and Brazaitis (1971) state that *C. moreletii* exhibits a caudal irregularity 66 per cent of the time. All the specimens we examined possessed ventral proximal caudal irregularities and 87 per cent exhibited irregularities extending laterally (Table 1). This condition is visible in animals of all ages.

TABLE 1. Numbers of Central American crocodiles exhibiting caudal scalation irregularities.

	Sample size	None	Lateral	Ventral	Ventral extending laterally
<i>Crocodylus acutus</i>	63	56	7	0	0
<i>Crocodylus moreletii</i>	111	0	many*	111	97

* Number not noted, however, always occurring in conjunction with ventral irregularities.

As determined by our sample, *C. acutus* exhibits regular caudal scalation 89 per cent of the time. Eleven per cent exhibit proximal lateral caudal irregularities (Table 1), but no ventral caudal irregularities have ever been noted.

ACKNOWLEDGMENTS

We wish to acknowledge the financial support of Robert L. Whiston, Queensland, Australia; Dr. G. F. De Witte for the loan of the co-types of *Alligator lacordairei* Preudhomme de Borre (= *C. acutus*) housed in the Académie Royal de Belgique, Professor Miguel Alvarez del Toro for permitting the examination of live specimens in his charge at the Instituto de Historia Natural, Tuxtla Gutierrez, Chiapas, Mexico. Special gratitude is due the Division of Amphibians and Reptiles of the National Museum of Natural History for providing research space and encouragement. We would like to thank Dr. George R. Zug for his critical reading of the manuscript and advice.

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